

Application No. 10/016,597
Filed: October 26, 2001
TC Art Unit: 2122
Confirmation No.: 6523

REMARKS

In response to an Office Action mailed on December 17, 2004, Applicant respectfully requests that the above-listed Amendments be entered and the Application be reconsidered. With entry of the above-listed Amendments, claims 3, 4, 6-8, 11, 12 and 14-16 are amended and claims 20-37 are new.

The Examiner rejected the Application under 37 C.F.R. 1.67(a) due to an allegedly defective oath or declaration. The Applicant wishes to thank the Examiner for the time and courtesy the Examiner extended to the undersigned attorney during a telephonic interview on March 24, 2005, during which the issue of the oath or declaration was discussed. During the telephonic interview, the Examiner indicated this rejection will be withdrawn and there is no need to submit new declarations. Withdrawal of this rejection is, therefore, respectfully requested.

The Examiner objected to the specification, because the first four lines of the Abstract contain a sentence fragment. The Abstract has been amended to overcome this objection.

The Examiner rejected claims 3-8 and 11-16 under 35 U.S.C. 112, second paragraph, as being indefinite. These and other claims have been amended to correct typographical errors to overcome this rejection.

The Examiner rejected claims 1-17 and 19 under 35 U.S.C. 102(e) as being anticipated by US Pat. App. No. 2003/0126195 by Reynolds, *et al.* ("Reynolds"). Reynolds discloses a common command interface to a network device. As shown in Figs. 1 and 21A, the network device includes a centralized processor 12 and multiple line cards 16a-16n. Each line card includes its own control processor subsystem 18a-18n. (Abstract and paragraph [0103].)

The Examiner asserts that Reynolds discloses "control program code responsive to at least one user command for issuing a plurality of device commands including at least one device command to replace said code image in an embedded device" in paragraph [0508]. The Applicant respectfully submits that the reliance upon Reynolds in this respect is not justified. Paragraph [0508] discloses a network management system (NMS) that interacts with an administrator. The administrator can select various options. If the administrator selects an Install option 1240, the NMS performs various functions, including creating a new record 1251 in an Upgrade Control table 1248

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and putting a value (representing an upgrade command) in a Command field 1252. (Paragraphs [0508-0511].) However, the NMS does not issue device commands. In particular, the NMS does not issue a “plurality of device commands,” nor does the NMS issue “at least one device command to replace said code image,” as recited in claim 1.

The Examiner also asserts that Reynolds discloses “monitoring program code, asynchronous with respect to said control program code, for generating at least one event indication in response to a change of at least one predetermined attribute associated with said embedded device and forwarding said at least one event indication to said control program code” in paragraph [0504]. The Applicant also respectfully submits that this assertion is not supported by the Reynolds disclosure. Paragraph [0504] discloses a software management system (SMS) that periodically polls an installation directory 1222 for new subdirectories that contain Installation Kits. The existence of a new subdirectory and an Installation Kit in the subdirectory indicate that software is to be installed or upgraded in one or more line cards of the network device. The Installation Kit includes an upgrade instruction file that indicates whether the installation or upgrade is to be performed on all or only some of the line cards. (Paragraph [0505].) Thus, neither the installation directory 1222 nor the Installation Kit is associated with a particular line card, as required by claim 1 (“associated with said embedded device”).

No art of record, either alone or in combination, discloses or suggests a system for replacing a code image in an embedded device that includes control program code and monitoring program code, asynchronous with respect to said control program code, as recited in claim 1. For at least this reason, claim 1 is believed to be allowable.

Claims 2-9 depend directly or indirectly from claim 1. Claims 2-9 are, therefore, believed to be allowable, for at least the reasons discussed above with respect to claim 1.

The Examiner rejected claims 10-17 for the reasons cited with respect to claims 1 and 3-9. For the reasons discussed above with respect to claim 1, claims 10-17 are believed to be allowable.

The Examiner rejected claim 19 for the reasons cited with respect to claim 1. For the reasons discussed above with respect to claim 1, claim 19 is believed to be allowable.

The Examiner rejected claim 18 under 35 U.S.C. 103(a) as being obvious over Reynolds in view of US Pat. No. 6,549,943 to Spring (“Spring”), essentially for the reasons cited with respect to

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claim 1. For the reasons discussed above with respect to claim 1, claim 18 is believed to be allowable.

Claims 20-37 are new. No art of record, either alone or in combination, is believed to disclose or suggest asynchronously replacing a code image and monitoring progress of replacing the code image, such that an event can be generated to indicate a status of replacing the code image before the code replacement is complete. Similarly, no art of record, either alone or in combination, is believed to disclose or suggest a control program and monitor program operative to perform these functions. Reynolds discloses an NMS that accepts an administrator's command and an SMS that downloads software to boards, however Reynolds is not believed to disclose monitoring progress of the downloads, such that an event can be generated during the download in case of, for example, a failure. Only after all the software has been upgraded on the boards does Reynolds' SMS write a completion indicator (i.e., notify the NMS). (See, paragraph [0524].)

The system and method of the present Application provides advantages over Reynolds' system, because software upgrades typically include several steps, and failure of one of the steps can cause the entire software upgrade to fail. Knowing which step failed can enable a system to take appropriate corrective action, or at least notify an administrator of which step failed, so the upgrade can be restarted, either from the beginning or from an appropriate intermediate step. Thus, claims 20-37 are believed to be allowable.

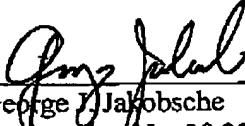
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For all the foregoing reasons, it is respectfully submitted that the present Application is in a condition for allowance, and such action is earnestly solicited. The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present Application.

Respectfully submitted,

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